

Appendix O: Forest Service Research and Development Projects

Department of Agriculture

TABLE 1

Key Point A – Firefighting Capacity (22 projects)

Station	Project Title	Lead Scientist
NCS	National and regional fire weather dynamics	Warren E. Heilman
NCS	Assessing vulnerability of populations to wildfire in the North Central Region	Robert G. Haight
NCS	FIA pilot test of a fuel condition monitoring system	Dennis May
PNW.	A smoke modeling framework for real-time predictions	Sue A. Ferguson
PNW	Estimating haze from prescribed and wildland fires	David V. Sandberg
PNW	Seasonal prediction of national fire risks and impacts	Ronald P. Neilson
PNW.	Fuel moisture mapping and combustion limits	David V. Sandberg
PSW.	Risks to fish and wildlife from wildfire and landscape treatments	Danny C. Lee
PSW.	An initial attack model for fire management planning	Marc Witala
PSW.	Fire behavior in live fuels	David R. Weise
PSW.	Real-time remote sensing of fire properties	Philip J. Riggan
PSW.	Weather models for area coordination centers	Francis Fujioka
RMS.	Improving decisions for fuel treatment options	J. Greg Jones
RMS.	Real-time fire monitoring nationwide	Wei Min Hao
RMS.	New technology for monitoring smoke characteristics	Wei Min Hao
RMS.	Remote sensing, GIS and landscape assessment tools for fire management	Colin Hardy
RMS.	Fire management strategies for wilderness and other protected areas	David Parsons
SRS.	Prediction of fire weather and smoke impacts in the Southeast	Gary L. Achtemeier
SRS.	Tradeoffs of alternative vegetation management strategies	Jeffrey P. Prestemon
SRS.	Establishing a wildland-urban interface research and technology transfer unit for the South	Pete Roussopoulos
SRS.	Long-range forecasting of fire season severity	Dale Wade
SRS.	Southern regional models for predicting smoke movement	Gary L. Achtemeier

Key Point B – Rehabilitation and Restoration (9 projects)

Station	Project Title	Lead Scientist
PNW.	Predicting spread of invasive species after fuel reduction treatments and postfire disturbance	Edward J. DePuit
PSW.	Effectiveness of postfire emergency rehabilitation treatments in the West	Jan Beyers
RMS.	Effects of wildfire, vegetation treatments, hydrology and geomorphology on postfire erosion	Daniel G. Neary
RMS.	Native plant materials for restoration of sagebrush steppe and pinyon-juniper communities	E. Durant McArthur
RMS.	Dynamics of weed invasions and fire in the northern Rockies	George Markin
RMS.	Effects of wildfire and fire management options on invasive and exotic species and pathogens	Karen Clancy
RMS.	Factors affecting Great Basin watersheds' susceptibility to invasive plants	Jeanne C. Chambers
RMS.	Patterns of white pine regeneration after fire	Anna Schoettle
RMS.	The role of grassland fire in managing exotic and woody plants	Deborah Finch

FPL Forest Products Laboratory
NCS North Central Forest Experiment Station
PNW Pacific Northwest Research Station
PSW Pacific Southwest Research Station
RMS Rocky Mountain Research Station
SRS Southern Research Station

Key Point C Hazardous Fuels Reduction (24 projects)

Station	Project Title	Lead Scientist
FPL	Harvesting underutilized trees and forest undergrowth	John F. Hunt
FPL.	Using small diameter timber and cull for laminated building materials	John F. Hunt
NCS.	Optimizing fuel reductions in time and space	Tom Crow
NCS.	Managing risk of fire on communities in the wildland-urban interface	Eric Gustafson
NES.	Fuels and fire behavior in the Central Hardwoods	Daniel Yaussy
PNW.	Ground-based support for mapping fuel and fire hazard	David V. Sandberg
PNW.	Fuel reduction and forest restoration strategies that sustain key habitats in the interior Northwest	John F. Lehmkuhl
PSW.	Effects of fuel reductions on stream ecosystems	Carolyn T. Hunsaker
PSW.	Alternatives to fire for fuel reduction in California shrublands within coniferous forest	Robert F. Powers
PSW.	Fire-related erosive processes in southwestern ecosystems	Ken Hubbert
PSW.	Effects of wildfire and fuel treatments on California spotted ow	John J. Keane
RMS.	Impacts of exotic weeds on fuel loading and fire regimes	Nancy L. Shaw
RMS.	Impact of fuel management treatments on fire behavior and forest vegetation	Dennis E. Ferguson
RMS.	Impact of fuel management treatments on forest soil erosion and production	William Elliot
RMS.	Management alternatives for fire dependent ecosystems in Colorado and the Black Hills	Linda A. Joyce
RMS.	Guidelines for fuel management in southwestern forests at the wildland-urban interface	Carl Edminster
RMS.	Restoration techniques in lodgepole pine forest	Ward McCaughey
RMS.	Use of remote sensing to examine disturbance effects	John E. Lundquist
RMS.	Riparian ecosystem dynamics in relation to fire in the Rocky Mountains.	Deborah Finch
SRS.	Wildfire risk in the Eastern U.S.	Steve McNulty
SRS.	Tradeoffs of fire and fuel management options: Herbicides	Thomas A. Waldrop
SRS.	Tradeoffs of fire and fuel management options: Mechanical methods	Kenneth W. Outcalt
SRS.	A system for mechanized fuel reduction at the wildland/urban interface	John Stanturf
SRS.	Fire and herbicide combinations to reduce fire intensity	Dale Wade

Key Point D – Community Assistance (8 projects)

Station	Project Title	Lead Scientist
NCS.	Modeling responses to landscape treatments	John F. Dwyer
NCS	Community partnerships	Pamela J. Jakes
PSW.	Recreation and fire in the wildland-urban interface	Deborah Chavez
PSW.	Firewise residential landscapes	Greg McPherson
RMS.	Building consensus on fire management	Brian Kent
RMS.	Preventing residential fire disasters at the wildland-urban interface	Jack D. Cohen
SRS.	Impact of wildfires on local economies	Jeffrey P. Prestemon
SRS.	Fire protection in residential expansion areas	Terry Haines

FPL *Forest Products Laboratory*
 NCS *North Central Forest Experiment Station*
 PNW *Pacific Northwest Research Station*
 PSW *Pacific Southwest Research Station*
 RMS *Rocky Mountain Research Station*
 SRS *Southern Research Station*

TABLE 2

Research Partners and Cooperators¹ for Forest Service National Fire Plan Research

(Partial list as of October 13, 2001)

Firefighting Capacity Research

Cooperator (NFP Project #)

1. Boston-Emerson Americas Inc (FPL.C.1)
2. Brigham Young University (PSW.A.3)
3. Carroll Nelson and Associates (MT) (RMS.A.1)
4. CH2M Hill Inc. (PNW.A.1)
5. Colorado State University (SRS.A.2) (PSW.A.5)
6. Ecological Services Inc (MT) (RMS.A.1)
7. Florida Division of Forestry (SRS.A.4)
8. Florida State University (SRS.A.4)
9. Genesis Laboratories Inc (FPL.C.2)
10. Jackson State University (NCS.A.1)
11. Matcom Inc (CO) (RMS.A.1)
12. Michigan Technological University (NCS.A.2)
13. Minnesota Department of Natural Resources (NCS.A.2)
14. Montana State University (RMS.A.5)
15. National Atmospheric and Space Administration (NASA)/GSFC (RMS.A.2)
16. National Forest System – Eastern Region (NCS.A.2)
17. National Ocean and Atmospheric Administration (NCS.A.1) (SRS.A.1)
18. Naval Postgraduate School (CA)(PSW.A.5)
19. North Carolina State University (SRS.A.2)
20. Oregon State University (PNW.A.3)
21. Pacific States Marine Fisheries Commission (SRS.A.2)
22. PNNL Inc. (PNW.A.1)
23. Scripps Oceanographic Institute (SRS.A.4) (PSW.A.5)
24. Space Instruments Inc. (PSW.A.4)
25. Technological University of Plant Polymers (FPL.C.1)
26. Three Tier. Inc. (PNW.A.1)
27. University of Alaska (NCS.A.2)
28. University of Arizona (RMS.A.5)
29. University of California at Riverside (PSW.A.3)
30. University of Florida (SRS.A.3)
31. University of Georgia (SRS.A.1) (SRS.A.5 – 2 coops)
32. University of Hawaii (PSW.A.5)
33. University of Iowa (RMS.A.3)
34. University of Maryland (RMS.A.2)
35. University of Montana (RMS.A.1) (RMS.A.5)
36. University of Toledo (NCS.A.2)
37. University of Utah (NCS.A.1)
38. University of Washington (NCS.A.1)
39. University of Wyoming (FPL.C.2)
40. Watson Consulting Inc (NCS.A.2)
41. Wyoming Sawmill Inc (FPL.C.2)

¹ *Partners and cooperators are working with Forest Service scientists on NFP research projects through cooperative agreements, joint venture agreements and contracts.*

Rehabilitation and Restoration Research

1. Brigham Young University (RMS.B.2)(RMS.B.3) (RMS.B.7)
2. Coconino National Forest (RMS.B.4)
3. Colorado State University (RMS.B.6) (RMS.B.4)
4. Montana State University (RMS.B.3)
5. National Forest Genetics Lab (RMS.B.2)
6. Nevada Division of Wildlife (RMS.B.2)
7. New Mexico State University (RMS.B.7) – 3 coops
8. Northern Arizona State University (RMS.B.4)
9. Quivara Research Center (RMS.B.7)
10. University of Colorado at Boulder (RMS.B.6)
11. University of New Mexico (RMS.B.7) – 2 coops
12. University of Washington (PNW.B.1)
13. USDA Agricultural Research Service (RMS.B.5)
14. Utah Division of Wildlife Resources (RMS.B.2 – 2 coops)
15. Washington State University (PNW.B.1)

Hazardous Fuel Reduction Research

1. Alabama A&M University (SRS.C.4)
2. Auburn University (AL) (SRS.C.3) (SRS.C.4)
3. Cambridge University (U.K.) (RMS.C.8)
4. Carnegie Museums (RMS.C.4)
5. Clemson (South Carolina) (SRS.C.2)
6. Clemson University at Georgetown (NCS.C.2)
7. Colorado State University (RMS.C.4)(RMS.C.7 – 2 coops)
8. Genesis Research Inc (FPL.C.1) (FPL.C.2)
9. Matcom Inc (CO) (RMS.C.4)
10. Michigan Technological University (RMS.C.3)
11. Middle Rio Grande Conservation District (RMS.C.8)
12. Montana State University (RMS.C.6) – 2 coops
13. Natural Resource Conservation Service (RMS.C.6)
14. New Mexico State University (RMS.C.5)
15. North Carolina State University (SRS.C.1)
16. Northern Arizona State University (RMS.C.5)
17. Ohio State University (NES.C.1 – 2 coops)
18. Ohio University (NES.C.1 – 2 coops)
19. Paleo Research Institute (RMS.C.8)
20. Santa Fe National Forest (RMS.C.8)
21. Stephen F. Austin State University (Texas) (RMS.C.5)
22. Tall Timbers Research Station (SRS.C.5)
23. U.S. Geological Survey (RMS.C.8)
24. University of Tennessee (SRS.C.4)
25. University of California at Santa Barbara (PSW.C.1)
26. University of Georgia (SRS.C.2)
27. University of Idaho (RMS.C.2)
28. University of Missouri (NCS.C.1) (NCS.C.2)
29. University of Montana (RMS.C.6)
30. University of Nevada at Reno (PSW.C.1)(PSW.C.2)
31. University of Texas at Austin (RMS.C.8)
32. University of Washington (PNW.C.2)
33. University of Wisconsin at Madison (NCS.C.2)
34. University of Wyoming (FPL.C.2)
35. Virginia Technological University (SRS.C.4)
36. Washington State University (RMS.C.3)
37. Yale University (RMS.C.4) (RMS.C.7)

Community Assistance Research

1. California Polytechnic State University at San Luis Obispo (PSW.D.1)
2. Colorado School of Mines (RMS.D.1)
3. Colorado State University (NCS.D.1) (PSW.D.1 – 2 coops)
4. Earth View Computing Inc. (PSW.D.1)
5. Louisiana State University (SRS.D.2)
6. Michigan State University (NCS.D.1) (PSW.D.1)
7. National Institute of Standards and Technology (NIST) (RMS.D.1)
8. North Carolina State University (SRS.D.1)
9. Oregon State University (NCS.D.1)
10. Pennsylvania State University (NCS.D.1)
11. San Diego State University (PSW.D.1)
12. Southern Oregon State College (NCS.D.2)
13. University of Arizona (NCS.D.1)
14. University of Florida (NCS.D.1) (NCS.D.2)
15. University of Georgia (SRS.D.2)
16. University of Minnesota (NCS.D.1) (NCS.D.2)
17. University of Montana (SRS.D.1)
18. USDA Natural Resource Conservation Service (PSW.D.1)